A

THOUGHT

Relating to

EDUCATION,

Offered to the

EXAMINATION

Of ſuch as have

NOBLEMEN or GENTLEMEN,

(From the Age of Eight to Twelve, *aut circiter*) under their Care.

——— *Lucidus Ordo.* Hor.

LONDON:

Printed for J. WILFORD, at the *Three Golden Flower-de-Luces*, near St. *Paul's*. 1732.

(Price Six Pence.)

The Five following ARTICLES *are written by the same Author.*

I. ROyal Innocence: Wherein King *Charles* I. is cleared from being any ways acceſſary to the execrable Rebellion in *Ireland:* A moſt malicious and groundleſs Calumny caſt upon him by the Ring-leaders of the *Engliſh* Rebellion; and that Charge retorted on themſelves, and proved by Facts. By the Author of the Index-Writer. Price 6 *d.*

II. The Index-Writer; diſcovering the Partiality and Diſingenuity of the Critical Hiſtorian, in his baſely perverting the Senſe of *Echard*'s Hiſtory of *England*, in an Index which he was employ'd to compile to that Book; wherein divers hiſtorical Facts are reſcued from his deſigned Miſrepreſentations, and ſet in a true Light. Price 4 *d.*

III. A Letter to the Rev. Subſcribers to a late voluminous Libel, entitled, *The Hiſtory of* England, *during the Royal Houſe of* Stuarts; in Vindication of the Honour of that Royal Houſe, from the vile Aſperſions caſt upon it, in that Collection of Falſhoods and Slanders. Price 6 *d.*

IV. An Examination of Mr. *Oldmixon*'s Reply to the late Biſhop of *Rocheſter*'s Vindication of Biſhop *Smallridge*, Dr. *Aldrich*, and himſelf, from the ſcandalous Reflections of the ſaid *Oldmixon*, Examin'd. Wherein is given an Account of the numerous Alterations in Mr. *Daniel*'s Hiſtory, as 'tis printed in the *Compleat Hiſtory of* England, of which Mr. *Oldmixon* has declar'd himſelf the Sole Editor. With a Proof that the Application of *Cinna*'s Character to Mr. *Hampden* can be no Interpolation, being in an Original MS. wrote by my Lord *Clarendon* himſelf; as herein refer'd to. Price 6 *d.*

V. A Method to ſhorten Controverſy exemplify'd; Addreſs'd to the Quakers at their General Meeting. Price 6 *d.*

TO THE

INSTRUCTORS

OF

YOUTH.

Gentlemen,

WHAT I *have to offer in the following Pages is not by Way of Inſtruction, a thing I am more ready to receive from, than preſume to give to my Superiors; but a modeſt Hint, which may, I hope, without any Offence, be ſuggeſted, in a reſpectful Manner, by an Inferior, to thoſe much above him in Knowledge and*

Learning: When 'tis considered that this Intimation being delivered in a Book in few Hands, almost universally neglected, it can be no Wonder that it should be unknown to Scholars, that Men of Reading should be unacquainted with it. The Thought is borrowed from an Essay (wrote many Years ago by Bishop Wilkins) *towards a real Character, and Philosophical Language: Now 'tis frankly own'd that the Attempt of this Author, for the establishing a real Character, and bringing it into common Use, amongst the several Nations of the World, however Ingenious, is a mere Speculation, a vain and chimerical Project: And the Performance has been look'd upon accordingly, met with an answerable Reception, and has had the Fate to be undervalu'd and despis'd; the just Prejudice against the main Scope and Design of the Writer bringing the whole Work into Disregard and*

Contempt:

Contempt: Thus the World has loſt that Benefit from it, which by a diſcreet and judicious Uſe thereof, it might very probably long before this Time have reap'd. My Buſineſs in this ſhort Eſſay is to endeavour to illuſtrate that; and to ſhew, that had the Tables, the ingenious Speculator fram'd as a Ground-work for his real Character, and Philoſophick Language, been apply'd to the Inſtruction of Youth, a better Foundation for the Knowledge, not only of Words, but Things, might have been lay'd, than hath yet been done by any Way of Inſtitution hitherto put in Practice. I am ſenſible in what Manner any thing New, tho' tender'd with all imaginable Deference and Submiſſion, upon ſo old an Art, and ſo well underſtood as that of inſtructing Youth, will be receiv'd by the generality of Readers; but the reſpectful Opinion I have of Gentlemen of Letters and Ingenuity,

nuity, inclines me to hope for a different Treatment from you; who will candidly and impartially read, examine, and pass your Judgment on what is with the utmost Respect and Deference entirely submitted to your Decision.

I am, Gentlemen,

Your most Obedient Servant.

A

THOUGHT

Relating to

EDUCATION.

THE Reader will excuſe me for beginning this Diſcourſe with a Recital of the Advantages that (according to my Apprehenſion) will attend this new Method of Inſtitution; when I ingenuouſly acquaint him, that this is done with a Deſign to diſpoſe him to a favourable Attention to the Method it ſelf, the next Thing to be treated on; towards the friendly Reception of which, it can't be thought improper to beſpeak his Candor and good Will. And that what I have to offer may be fully underſtood, and have its due Weight, he is deſired to keep this in his Mind, conſtantly in View while he is reading this Eſſay, this Thought relating to Education, founded on a right Uſe of Biſhop *Wilkin*'s Philoſophical Tables and Dictionary; that the Deſign of that Reverend Author in theſe Tables is to give a regular Enumeration and Deſcription of all kinds of Things and Notions that fall under Diſcourſe: As 'tis his Purpoſe and Endeavour in the Dictionary to explain,

and

and according to their various Significations, give the Meaning of all kinds of Words, or Names of Things. That this Mark which the ingenious Speculator in his elaborate Treatiſe aimed at, may be ſtill preſent to his Thoughts, continually before his Eye. So much by way of Introduction, that the Tract may without Prejudice be read, without Diſadvantage weighed and conſidered.

Now the firſt obvious Advantage that will recommend this methodical Way of Inſtitution is this; that hereby a plain and ſhort Way will be opened for the Attainment not only of verbal but real Knowledge; to which, 'tis thought, this will be found a more direct and readier Courſe, than any that has hitherto been put in Practice, that has yet been taken for the inſtructing and training up of Youth. It can't be deny'd, that the getting and ſettling in our Minds clear and diſtinct Ideas of Things is the firſt neceſſary Step towards Knowledge; it will be own'd that our Knowledge cannot exceed our Ideas and Notions of Things, that where they are imperfect, obſcure, or confus'd, to imagine that our Knowledge ſhould be certain and clear, would be a fooliſh Thought, a vain and groundleſs Expectation; it will likewiſe be granted, that true Definitions, Deſcriptions not unartfully made, are Means no ways improper to convey juſt and adequate Conceptions. And laſtly, it will be confeſſed, that where the Mind that is to be furniſhed with theſe Ideas is weak, the Underſtanding ſmall, and the Capacity narrow; in that Caſe the Method pitched upon, and made choice of for preſenting theſe Materials of Knowledge, in Conformity to the Nature of the Subject, ought to be, at the ſame time, both clear and ſhort. As, I ſay, the

Knowledge

Knowledge of Things ariſes from the Clearneſs and Diſtinctneſs of our Ideas; ſo does the Knowledge of Words, no mean part of Science, from a right Underſtanding of their various Meanings and Acceptations, according to their primary and proper, or their ſecondary and improper Significations.

Now whether the Dictionary be ſo contriv'd as to anſwer that uſeful Part of Initiation, the giving the exact and preciſe Meaning of Words, it becomes not, nor ſhall I take upon me to affirm: Let any Gentleman of the Univerſity ſpend at different Times about twenty Hours in comparing ſeveral Words in the Dictionary with the Tables to which they are referred; and after the Experiment made with Care and Attention, let him be his own Judge of the Performance, and as it ſhall appear to him upon Trial, accordingly let him determine. As the Tables contain a regular Enumeration and Deſcription of all Things and Notions, plac'd according to ſuch an Order, that the bare Diſpoſition and Arraignment of them may help towards, and contribute to the defining them; ſo by this Artifice, this Juxta-poſition of Things ſimilar, that have an Affinity and Relation to, and a mutual Dependance on each other; the Deſcriptions become the plainer and ſhorter, are reduced into a narrow Compaſs, and couch'd in a very few Words; ſufficient however by the help of Method and Order, to determine their primary Significations, to convey the main and principal Ideas. On theſe two Accounts therefore are they the fitter to be apply'd to the Uſe I propoſe, more accommodate and ſubſervient to this Deſign of laying a Foundation for Knowledge in the Minds of young Children; as they exhibit to their Minds clear Ideas, and in a manner adapt-

ed and well ſuited to their Capacity. When I call this Method of Inſtitution a more direct and readier Way to the Knowledge of Things as well as Words, tho' I plainly by that Sentence declare in Favour thereof, and give it Preference to, and a Place above others: I aſſign a Reaſon at the ſame time for this Eſteem, ſhew what moves and induces me to give it this Preference; while it anſwers an End to which other Methods of Inſtruction can contribute very little, are no ways fitted to promote: An End ſo little regarded by the preſent Inſtructors in the Scheme they proceed by, that it ſeems almoſt wholly excluded, and ſcarce even ſo much as intended.

Another and no ſmall Benefit from this new Method will be, that as Ideas and Words are preſented to, and fix'd upon the Mind in a natural Order; that whereas it receives at the ſame time ſuch and ſuch only as have ſome Affinity and Relation to each other; that thoſe betwixt which there is a Congruity, Likeneſs and mutual Dependence, are orderly and in a regular way offered to the Imagination; in conſequence of this methodical Arrangement; as they have been depoſited and plac'd, ſo will they ariſe; not confuſedly (as in others who have ſo received their Ideas) but regularly, and in a manner agreeable to that by which they have been received. They who have been educated in the common Way, according to the ordinary and accuſtomed Forms, are too apt, I am afraid, to fall into the Extravagancies of *Horace*'s Painter, and think in the ſame Manner that he drew. A Way then chalk'd out to keep the Fancy in ſome Bounds, and fix that mercurial Quality; to confine the Thoughts within a narrow Compaſs, always upon the Wing, and for rambling; to prevent theſe exorbitant Sallies of the Imagination,

and

and exclude all vain, wild and impertinent Ideas, and that lays a Foundation for a ſober, clear, regular Courſe of Thinking, ſuch as I preſume this Method of Inſtruction will introduce, where the mental Pictures will be drawn truly, and according to Nature; compos'd of congruous, coherent Ideas, that have a near Relation, Agreement and mutual Correſpondence with one another; an Inſtitution thus helpful to exact Writing, and true Reaſoning, wants only to be try'd in order to be receiv'd and valu'd, by ſuch whoſe Buſineſs has lay in the Employment and Exerciſe of the Mind, the Severity of Study, and the Fatigue of Thinking; who need not be told how laborious, tedious and unpleaſant Compoſition has been rendered to them on this account, and from this Cauſe chiefly; that a vaſt Number of idle, foreign and impertinent Ideas have been continually ariſing in, offering themſelves to, ſolliciting of, and diverting the Mind from Attention to the Subject under Conſideration; the Matter exerciſing their rational and diſcurſive Faculties. A third Advantage I ſhall name with reſpect to the Learner, is, that hereby his Memory will be improv'd and ſtrengthen'd; to which (as we are taught by Experience) nothing can more contribute, prove more ſerviceable, and be of greater Benefit than Clearneſs and Order: The two ſpecial and recommendatory Properties of this new Method, ſo calculated as to be an Auxiliary, and give Aſſiſtance to another Operation of the Mind, that in young Perſons can't be too much promoted and furthered; that, I mean, of Invention, by ſuggeſting proper and pertinent Ideas, in an orderly and methodical way. Nor will the Judgment (whoſe Office and Buſineſs it is to compound and compare Notions of near Affinity and Relation toge-

ther, ſo as to make a right Eſtimate of Things and Conſequences) be left unaſſiſted; but on the contrary, be enabled by the Light it will receive from Clearneſs, Diſtinctneſs and Order, to make Determinations with more Certainty and Exactneſs, nearer Conformity to the Nature of Things, and Agreement to what ſhould be the end of all our Study, the Effect and Reſult of all our Labours and Diſquiſitions, and for the Diſcovery of which that Faculty was given us; I ſay, a more perfect Agreement to Truth itſelf. To all which may be added, that the Pupil having been thus early, and in his firſt Years conſtantly accuſtom'd to Method, he will at length become a Methodiſt himſelf, grow by degrees dextrous in the uſe of thoſe Arms he has daily handled; and by the help of that Art he has been continually exerciſed in, an expert and compleat Artiſt.

The next Thing to be done, is to give a ſhort Account of the Work on which is built this New Method of Inſtitution. The Author in his Scheme has reduc'd all Things or Notions to forty Genus's or common Heads: The firſt ſix of theſe comprehend ſuch Matters, as by reaſon of their Generalneſs, or in ſome other Reſpect, are above all thoſe common Heads of Things, call'd Predicaments: The Reaſon for beginning his Tables in this metaphyſical Manner he gives in theſe Words, "That in the Enumeration of all Things and Notions, thoſe are firſt to be conſidered which are more general or comprehenſive, belonging either to Metaphyſick, or to Grammar and Logick. And that tho' Particulars are firſt in the Order of Being, yet Generals are firſt in the Order of Knowing, becauſe by theſe ſuch Things and Notions as are leſs general, are to be diſtinguiſh'd and defin'd." On which I ſhall make this Remark,

mark, That let the Reaſon for making his Tables of Tranſcendentals the firſt ſix of the forty, be never ſo good, it will be very improper, and indeed ridiculous to begin with them in this New Method; being in many Particulars beyond the Capacity of a Child, and therefore to be poſtpon'd, till an Acquaintance and Familiarity with ſeveral other of the eaſier Tables has prepar'd the Way, and render'd him capable of receiving Inſtruction by theſe more difficult Tables by theſe Schemes harder to be underſtood. The remaining thirty-four belong to the ſeveral Predicaments, of which he reckons only five. Of theſe Subſtance takes in fourteen Genus's, Quantity three, Quality five, Action four, and Relation eight. As to his Tables relating to Subſtance, which contain 130 Pages, and make about half of what he calls the Scientifical Part; I think they are eaſy enough, and may be well underſtood by a Lad of eight or nine Years of tolerable Parts, and forwarded by the Help and Aſſiſtance of a diligent Tutor: So that if thoſe Tables are not read thro', 'tis not on account of any great Difficulty in them, that renders them too hard for the young Student; but becauſe they contain Things that may be thought not very material, and of Conſequence too minute to be particularly and thoroughly conſidered. The three belonging to the Predicament of Quantity, *viz.* Magnitude, Space and Meaſure, are, 'tis own'd, not ſo eaſy; and the Inſtructor will meet with ſome Particulars therein, the Meaning whereof if he can convey to his young Pupil, he will ſhew his Ability and Dexterity, his fitneſs to give Inſtructions, and how well qualified he is to convey Knowledge.

The next five Tables concern Quality, the Genus's belonging to which are natural Power, Habit,

Habit, Manners, ſenſible Quality, and Diſeaſe, with the various Differences and Species under each of theſe, as in the preceding and ſubſequent Tables. Theſe Schemes reach from Page 194 to 225, and explain many Things uſeful to be known; part of this Knowledge young Maſter is capable of, and part thereof is beyond his Underſtanding and above his Reach; ſo that in the uſe of theſe, as indeed of almoſt all the Tables, it will be proper, I may ſay neceſſary for the Preceptor to apply his Judgment, without which this new propos'd Method will not in any degree anſwer what is intended by this Way of Inſtitution.

Next to the Predicament of Quality ſucceeds that of Action; the ſeveral Kinds of which may be diſtributed into ſuch as have for their Agent a Spirit, or ſpiritual Faculty, call'd Spiritual Action. A Body or material Subſtance, reſpecting chiefly either the Actions of animate Bodies, call'd Corporeal Action, Paſſage of animate Bodies from one place to another, ſtil'd Motion. Sundry Heads of Works, about which Men of ſeveral Callings are to employ themſelves, ſtil'd Operation.

Theſe four Genus's take up about four and twenty Pages, and conſiſt of Particulars, ſome more, ſome leſs uſeful and difficult to be known; on which account we muſt here again call on the Tutor to make a juſt Diſtinction, and ſuch a Choice as tends moſt to promote the Improvement of the young Gentleman he is to direct, whom he has taken under his Care, and is in the beſt and moſt advantageous manner to inſtruct.

Relation takes in eight Genus's, three of a more private Nature, namely, 1ſt. Œconomical, or Family Relation, together with the ſeveral Kinds of Things relating to thoſe in that Capacity. As, 2dly, Poſſeſſions. Or, 3dly, Proviſions. By Re-

lation

lation more publick, is included civil Relation, Judicial, Military, Naval, and Eccleſiaſtical. Theſe Genus's, as are moſt of the reſt, are divided into ſix Differences; a Limitation 'tis acknowledged arbitrary, but nevertheleſs convenient, and of uſe. Under each Difference are enumerated the ſeveral Species belonging to that Difference. The Species are commonly joined together by Pairs, for the better helping the Memory. Thoſe Things which naturally have Oppoſites, are joined with them according to ſuch Oppoſition, whether ſingle or double. Thoſe Things that have no Oppoſition are paired together, with reſpect to ſome Affinity which they have one to another.

And what is ſaid of the Species in theſe five laſt Tables is to be underſtood, tho' not particularly expreſs'd, in the ſhort Account I gave of the other thirty five. If but half that is contain'd under this Predicament Relation be made clear to the Underſtanding of the Learner, not a little uſeful Knowledge may thereby be imparted; and thus by the help of theſe, and what he may learn from the former Schemes, will the Underſtanding receive an Improvement beyond what has been found at the Age of twelve, not inferior to what is uſually to be met with at ſixteen. After all, I would not have any one believe that I think this Eſſay of Biſhop *Wilkins*'s compleatly finiſh'd, with all the Advantages ſuch a Work is capable of. 'Tis no eaſy matter to enumerate all kinds of Things and Notions, and it will be no wonder that, upon a ſtrict Examination, ſeveral Things ſhould be found wanting. It muſt be owned, that the Buſineſs of Defining, is, amongſt all others, a Thing the moſt nice and difficult, and that the doing this for all kinds of Things and Notions, in a compleat and exact manner, is a Task too hard for

for one Man, beyond any ſingle Abilities, and is ſufficient to employ the combin'd Studies, exerciſe the joint Abilities of many Men, even of a College. So that great Allowance is to be made for the many Slips of this ingenious and diligent Author in this knotty part of the Work.

'Tis no Buſineſs of mine to cry up theſe Tables as finiſh'd and in all reſpects perfect, 'tis enough to ſhew, that as imperfect as they are they come up to my Deſign, and that a way of inſtructing Youth, between the Age of Eight and Twelve, preferable to any other Method now in uſe, may, by a learned and judicious Tutor, be thence collected and deriv'd. Not but that the compleating the Tables, to render them more beneficial and uſeful, is a thing to be deſir'd, that merits the Endeavours and Labours of ſuch as approve of, and are willing to promote this part of Education hitherto neglected, and here humbly offered and recommended to the Publick. And I take the liberty of propoſing a Way how this may with the leaſt Difficulty be brought about and effected. It may be taken for granted, that thoſe Gentlemen who have inſtructed Youth by theſe Tables for three or four Years (the time propoſed for their thorough Underſtanding ſuch a part of them as ſhall be thought moſt uſeful, moſt ſuited to their Capacity) will, by their cloſe Application to this Work, be enabled to make ſeveral very material Amendments; now if publick Notice was given by ten or twelve Perſons who had been thus employ'd, that their Alterations ſhould be communicated to a Perſon they approved of, and judg'd qualified, by the help of thoſe Emendations to compleat the Tables; 'tis not improbable but ſome Man of Leiſure and Judgment might be found out willing to take the Pains of making uſe of, and uniting their learned Labours towards finiſhing that Work.

When

When I aſſign three or four Years for the attaining the Knowledge that is to be communicated by the Tables, it can't be deny'd, that in that Space of Time they be thoroughly underſtood, proper Defalcations being made, what is judged unneceſſary, or what appears too difficult therein being omitted. Tho' I ſupppoſe the Study of theſe Tables to be the daily Buſineſs of the young Gentleman, I would not be thought to intend that this ſhould be his whole Employment; an Hour or two each Day will be thought too much by him, and full enough by the Tutor, who will find himſelf under the neceſſity of more than ordinary Study and Application of Thought to falicitate the Work, to bring down what is above to the Level of the Child's Capacity, to make that which is of it ſelf difficult, by a proper Explication eaſy to be underſtood. I would not have it thought while I am thus earneſtly recommending and preſſing the uſe of the Tables, that I have no regard to the Dictionary, that I look on it as a thing unſerviceable to the preſent Propoſal, and to be neglected as uſeleſs: A frequent Uſe ought to be made of this in conjunction with thoſe: From this ſhould be ſelected a great number of Words that refer to the Tables, which are themſelves upon thoſe References to be turn'd to and conſulted. The Dictionary and the Tables ſhould go Hand in Hand, muſt mutually aſſiſt each other, and jointly contribute to the conveying of Knowledge, by giving as well a clear underſtanding of Words, as juſt and adequate Notions and Conceptions of Things. And the Inſtructor muſt apply to this what *Horace* ſays of Nature and Art, Study and Wit:

——————*Alterius ſic*
Alter poſcit opem Res, & conjurat Amice.

The twelfth Chapter of the ſecond Part of the Eſſay (which is a general Explication of the Tables, and contains a few Inſtances for the better Guidance and Direction of thoſe who would reap the greater Advantage and Benefit from them) can't be read too often by the Scholar, can't be too much conſidered by him, or too deeply imprinted on his Mind; and the Tutor would do well to enlarge the Numbers of Examples to make this explanatory Diſcourſe ſtill more advantageous and uſeful. There is one Conſideration on this Occaſion not to be omitted, that concerns, and is not unworthy the Notice of the Teacher himſelf; as what has an immediate relation to, and in a peculiar manner belongs to him. That whereas, according to the common Method of Education, the Preceptor (when the Learner is of the Age of one juſt entring on this new Way of Inſtitution) has Work cut out for him not at all ſuitable to his Character and Temper; no ways befitting a Scholar and a Gentleman; and is employed in Things in an inferior Nature, vaſtly below him; in this Caſe, following this New Method, he will not be engaged in mean and trivial Matters, in unſcholaſtick Occupations, in Ways low, unprofitable and unentertaining; but in a Buneſs worthy of, beneficial and delightful to himſelf; his Ideas of Things will become more clear and diſtinct; his Skill in Words more accurate and exact; his Mind, as well as his Knowledge, will be enlarged, and his Imagination in no ſmall Degree entertain'd and pleas'd. Thus will he be rewarded for his great Pains, and the extraordinary Labours he is at, will bring its own Recompence with it; and if his Mind be put upon an unuſual Strain and Exerciſe, it will receive Advantage in proportion, an anſwerable and unuſual Benefit.

This

This Encouragement he will have to quit the old Path, and ſtrike into a new Road; a Way where he will meet with ſomething ſtill new and agreeable to entertain him; ſomething uſeful to improve him; nothing trifling and below his Notice to diſcompoſe and diſquiet him; in a word, whatever he can deſire, and much more than he can expect, who has taken upon him the humble Task, and is employ'd in that inferior Office of giving Inſtructions to Children.

Our Author having diſpatch'd the ſecond Thing propos'd to be treated of, the Scientifical Part, containing a regular Enumeration and Deſcription of all Things and Notions, proceeds to the Organical Part, or an Enquiry after ſuch kind of Helps, as may aſſiſt us in the forming theſe more ſimple Notions into complex Propoſitions and Diſcourſes, which he calls Grammar, which he treats of, not according to any inſtituted and particular; but philoſophically, and after a manner rational and univerſal; conſidering ſuch Grounds and Rules as naturally and neceſſarily belong to the Philoſophy of Letters and Speech in general; which being on that account to his Purpoſe, and anſwering his Deſign of a real Character, *&c.* he was oblig'd to take a particular and diſtinct View of. What I have to ſay concerning this his natural Grammar, is this, that as to the five laſt Chapters of this Diſcourſe, I think there is little in them to my Purpoſe, and that they may be entirely omitted as unſerviceable to this End. That out of the five firſt, if the Tutor will give himſelf the trouble of making judicious Extracts, he may collect ſome Rules and general Remarks, which would not prove unuſeful to his young Scholar. That as to the ſixth and ſeventh Chapters, treating of Tranſcendential Particles, exhibiting Inſtances of the

great Uſefulneſs of theſe Particles, and Directions how they are to be apply'd; I take the liberty of recommending them to his Attention, and ſerious Study; not examining them as ſubſervient to the Authors, but as conducive to, and promoting this new Method of Inſtruction.

And here I think fit to leave him to himſelf to try his Ability, and make uſe of his own Sagacity, that he may have the Fatigue and Labour, as well as the Benefit and Pleaſure of the Diſcovery. A Child that has gone thro' this Eſſay, and been ſucceſsful in theſe initial and preparatory Studies; that has made himſelf well acquainted with his Mother Tongue; learnt ſome general Rules of Grammar; and attain'd a Degree of Knowledge above his Age; will ſoon adorn the School he enters, will by a ſudden and ſurpriſing Improvement, under the Inſtructions of an able Grammarian, bring Reputation to this Method as well as to his Maſter; learning in a man-like, and not a puerile and childiſh Way; not as other Novices by roat, but as he has been accuſtomed, according to his former Practice, by reaſon—— And if we follow him from the School to the Univerſity, from *Weſtminſter* to *Oxford*, we ſhall find him as apt to receive Academical Learning, with the ſame Facility as he had before receiv'd Grammatical Literature and Claſſical. From Acuteneſs in Diſtinguiſhing, Cloſeneſs in Reaſoning, Certainty and Firmneſs in Infering, he will ſoon commence a Logician, and become Maſter of the ſecond Science; the Stiffneſs of which his firſt Inſtructions will enable him to ſoften, to uſe the Art as a Gentleman, not a ſervile Follower, not with a pedantick Formality, but ſtill artfully, with Exactneſs and Regularity. And when the Mathematician takes him under his Inſtruction,

and

and *Ariſtotle* gives Place to *Euclid*; when he quits the Common Field, and enters Incloſures; when he begins to contract his View, and from Generals deſcends to Particulars; when he confines his Thoughts to, and imploys his Talent in Reaſoning about Magnitude; the two Qualities he brings along with him, Clearneſs and Attention, will ſoon produce a third Earneſtneſs and Intention; by the help whereof he will ſoon paſs thro' the Elements, and be led to *Archimedes* by *Euclid*. In a word, whether Chronology or Hiſtory, natural or moral Philoſophy, Law or Divinity be the Object of his Study, the Imployment of his Thoughts, the Diverſion and Improvement of his Mind; whether he undertakes the Service of his Prince or his Country; whether he ſhines at Court or in Parliament; his Skill in each Art, the Figure he makes in every Station, will ſhew the Advantage of a good Foundation, of an uncommon and philoſophical Education.

I had almoſt forgot one thing, the Inſtructor ought to be advertis'd of, that in this Work there are ſeveral mean and vulgar Words not fit for a Gentleman to uſe or to know; if therefore I may on this Occaſion be allowed to turn Adviſer, I would requeſt the Gentleman who undertakes the Care and Direction of young Perſons, to ſtrike out whatever Words he meets with either in the Tables or Dictionary that come under this Denomination, deſerve Cenſure, and ought to be exterminated and expunged. I own I am a little ſurpriz'd that ſo ingenious and learned a Man as Biſhop *Wilkins*, ſhould be guilty of this Over-ſight, ſhould ſink into this Meanneſs; but give me leave to make this Apology for him, let this be his Excuſe, that the Work he was engag'd in, the Eſſay he was upon, was long and difficult: In which Caſe great Allowance is to be made, and the Candid

did and Ingenuous will not be offended with, nor bear hard upon ſuch a Writer for every ſlight Miſtake, ſuch as the common Frailty of our Nature may excuſe, ſuch as large Volumes are ſeldom free from; remembring that in long Performances Sleep will ſometimes ſurprize: That *Homer* himſelf is not without his Faults, and has been ſometimes obſerv'd to Nod.

I have before given an Hint, that there is not the utmoſt Correctneſs in the Tables, that there is room (as will be found on Examination) for Additions and Emendations; and that tho' they paſs'd the Hands of a careful and exact Writer, they may be render'd ſtill more compleat and perfect. And as it concerns them more particularly who are to make uſe of theſe Tables, that they ſhould be in all Reſpects exact and compleat; it lies upon them, is their proper Buſineſs, by their Study and Skill, to bring about and effect what will render their Labour more uſeful, their Inſtructions of greater Benefit and Advantage. In promoting this Deſign, theſe Gentlemen may very laudably ſpend their Time and Study, taking with them, and obſerving this Caution, That as the Correcting and Amending theſe Tables will prove a Work of no ſmall Difficulty, will require great Care, and all imaginable Exactneſs of Judgment; ſo when they have undertaken this Task, they would not be too forward in making Alterations, which will require their ſecond and third Thoughts, ought to paſs a ſtrict Examination, and be the Effect and Reſult of the moſt ſerious Deliberation; that they may herein proceed on the ſurer Grounds, leſt otherwiſe they ſhould happen to deface what they intended to amend.

As well as I think of this new Method of Inſtruction, others, 'tis likely, will entertain very different

different Sentiments about it; ſome without well conſidering and weighing it; ſome perhaps without giving themſelves the Trouble ſo much as to underſtand it; both Sorts out of a good Opinion and over Fondneſs for the Methods generally practiſed, that are in common Uſe. And this Way of Proceeding is agreeable enough to what Men have formerly done on the like Occaſions, to the Backwardneſs there is in moſt to receive any thing new, what does not come recommended to them by the common Vogue. There may be many Inſtances, I doubt not, brought to illuſtrate this, but being unwilling to over-do, I ſhall confine my ſelf to two or three Particulars. No one can deny Logarithms to be an Invention of excellent Art, and exceeding uſeful to facilitate Calculations, by making Addition and Subſtraction to anſwer the End of tedious Multiplications and Diviſions, and yet it was a conſiderable time before Men in other Parts did ſo far take notice of them as to bring them into Uſe. The Art of Short-hand, in its kind, an ingenious Device, and of no ſmall Uſe, applicable to any Language, wonder'd at by Travellers that have ſeen the Experience of it in *England*, was not within ſixty Years after its Invention brought into common Practice in any other Nation. But to bring this home to our ſelves. Sir *Iſaac Newton* (allow'd by all the ableſt Mathematicians of the Age) in the Lectures he read during his Profeſſorſhip at *Cambridge* about ſixty Years ago has given Solutions of ſeveral Problems in an analytical way built on the *Data* of *Euclid*; theſe Demonſtrations are publiſh'd in a Book entitled, *Elementa Arithmeticæ Univerſalis*, a Work well known to be his, tho' his Name is not prefix'd to it; and Judges ſee that maſterly Hand in them, that is viſible in all his Performances:

mances: The ſame Method (of which he was no ſmall Admirer) he follow'd in ſolving ſome Problems in his fifth Section of the firſt Book of his *Principia Mathematica Naturalis Philoſophiæ*, printed in 1687. By the judicious Application of this Analyſis he has made his Proofs moſt elegant, neater than if he had made uſe of common Algebra. Now one would think that the Name of this great Maſter, and the Excellency of his Performances, could not fail of giving Credit and recommending Reaſoning on theſe Principles, this Method of Proving to the World; and that this great Geometer and Analyſt would have had Followers as well as Admirers. But it has happen'd otherwiſe, an over Fondneſs to Algebra (an Art deſervedly eſteem'd) has brought the ancient Analyſis into Diſeſteem; and tho' in ſome Caſes vaſtly preferable, 'tis little regarded, and *Euclid*'s *Data* is become a Book moſt injudiciouſly neglected. So that the only Cauſe of Wonder (in caſe this Thought be not diſregarded) can be this, that ſo mean a Writer ſhould meet with better Reception than the ancient *Greek*,—than the modern Mathematical Philoſopher. I ſhall now make a little Excurſion, and by way of Digreſſion ſay ſomething from our Author relating to Pronounciation; a thing that deſerves the Attention of thoſe who ſpeak in publick, ſuch as would be liſtened to, and heard with Attention. As for the Powers of Letters, they are very uncertain, no ways fix'd and determin'd to the ſame Signification; which, as to our *Engliſh* Pronounciation, may be made to appear by abundance of Inſtances both in the Vowels and the Conſonants; as to the Vowels 'tis generally acknowledged, that each of them have ſeveral Sounds. *Vocales omnes Pluriſonæ*, ſays a learned Writer. They are pronounced, ſays another,

other, *Aliquando tenuius, exitiuſq; nunc craſſius, nuce intermedio ſono.* And I don't know but the Obſervation may be carried ſomething further, and that it may be affirmed, that each Vowel, beſides its own, has the Powers of the other four. As to the Conſonants, theſe likewiſe are of very uncertain Powers. Now, theſe Variations and Differences (whether agreeable to Reaſon or not) are ſo ſettled by a long and general Cuſtom, that every one muſt conform his way of ſpeaking to this Law and Rule of Speech. And on this Occaſion it may be obſerv'd that Men of Reading are in this Print, are not a little faulty, and may deſerve a gen le Admonition; they are too apt to deliver themſelves, and be govern'd by the way of Spelling, and not according to the uſual Manner of pronouncing. The reaſon of which Miſtake ſeems to be this, that they follow their Eye more than their Ear; in this Caſe a bad, becauſe a falſe Guide; when 'tis conſidered that the Words whoſe Sounds do diſagree with their Way of Writing, are vaſtly numerous, and make a conſiderable part of our Language. And without any Complement to the Women, I may venture to ſay, that in the Point of Reading they have the Advantage of Men, they offend the leaſt againſt Cuſtom; their Ear, herein the ſureſt Director, is what governs their Speech, by this Means render'd Eaſy, Natural and Agreeable. Whoever has frequented publick Aſſemblies, heard Speeches in the Upper or Lower Houſe of Parliament, obſerv'd how much a well worded Oration has been diſparag'd by a bad Delivery, and how much an inartificial and empty Harangue has been ſet off by an handſome way of Speaking, will not think good Pronounciation, a Matter below the Notice, unworthy the Care, no mean Accompliſhment of a Scholar, a Gen le-

man, and what thoſe two Characters conſtitute, an Orator.

Whilſt I was drawing up this Diſcourſe a Fancy came in my Mind, that the Character it ſelf, tho' it could no ways anſwer the Author's Deſign, might be made ſerviceable to another Purpoſe, and was not on that account to be laid aſide as a Thing entirely inſignificant and uſeleſs. This Thought is not for the Uſe of Children, but propos'd to Gentlemen of the Univerſity, who are the proper Perſons to receive Benefit from it, which can be only rendered uſeful by the help of Learning and Knowledge: I will firſt tranſcribe a Paſſage from the Biſhop's Dedication as an Introduction to what I have to offer on this Head. This Deſign will contribute much to the clearing of ſome of our Modern Differences in Religion, by unmasking many wild Errors, that ſhelter themſelves under the Diſguiſe of affected Phraſes; which being philoſophically unfolded, and render'd according to the genuine and natural import of Words, will appear to be Inconſiſtencies and Contradictions. And ſeveral of thoſe pretended Myſteries and profound Notions, expreſſed in great ſwelling Words, whereby ſome Men ſet up for Reputation, being this way examin'd, will appear to be either Nonſenſe, or very flat and jejune. And tho' it ſhould be of no other Uſe but this, yet were it in theſe Days well worth a Man's Pains and Study, conſidering the common Miſchief that is done, and the many Impoſtures and Cheats that are put upon Men under the Diſguiſes, and by the ſophiſtical Uſe of Words. Let it be obſerved that this Character has a reference to the Nature of Things, and that common Notion of them wherein Mankind does agree; that the End of it is the Expreſſion of

our

our Conceptions by Marks which ſignify not Words but Things. 'Tis next to be conſider'd, that when Words were firſt learnt, in our Infancy, a great part of them were imprinted on the Memory without Notions; the reſt with Ideas very confus'd and indiſtinct; and that by this Means a Foundation has been laid for Error and Miſtakes in abundance; which muſt be acknowledged, more or leſs, affect all Men; and from which the utmoſt Labour and Study has not been able wholly to free them, ſeveral being undiſcoverable by the Mind ſeeing them through a Miſt and Cloud of Words. It were therefore to be wiſhed, that ſome Method could be found out that might enable them to abſtract, to ſeparate Words from Things, to excite Ideas in the Imagination as much as poſſible, unmask'd and diſengaged from their Names; in order to frame our Notions agreeable to the Nature of Things, that our Conceptions may become juſt; that is, clear, diſtinct, and determinate. To this End I beg leave to propoſe (till ſome better Method can be diſcovered) to Gentlemen of Speculation and Learning, as no improper Means, this real Character of BISHOP WILKINS. The ingenious Author fancies the Learning of this ſo eaſy a Work, that it might be attain'd in a Month's time; herein 'tis not unlikely he is miſtaken, as moſt Men are apt to be when they paſs their Judgment upon the Eaſineſs of what they thoroughly underſtand, and are perfect Maſters of. I ſhould rather think it would take two or three Months for one of Capacity and Memory, ſo to underſtand it as to be able to expreſs his Mind by this Character with tolerable Eaſe and Readineſs. If it ſhall however appear a fit Means to rectify our Notions, by giving us a clear

and naked Repreſentation of Things; they who put a juſt Value on Truth, will not think the Time thus ſpent, loſt, or unuſefully employ'd. Now, that this Character may prove beneficial and uſeful, I am induced to think when I conſider, that in Arithmetical Operations, there is an abſolute Neceſſity to make uſe of Characters (for ſuch I may properly call the *Greek*, the *Roman*, and the preſent way of Notation) without which the Art of Numbers could never in any tolerable Degree have been underſtood. And becauſe the Satisfaction a Man gives himſelf is moſt agreeable and convincing; I would adviſe any one who doubts of the Neceſſity of Characters in Arithmetick, to try his Skill and Dexterity, and ſee whether he can divide or multiply large Numbers expreſs'd (not in the common way by Figures or Characters) but by Words: One or two Trials of this kind will give the moſt ſcrupulous Perſon ample Satisfaction, that had there been no other way of ſetting down Numbers but by Words, Arithmetick would not have made that Figure in the World it does at preſent; been in that univerſal Eſteem for its Uſefulneſs which it now bears; would never have been numbred among the Liberal Sciences. And I leave it to Conſideration whether the Clearneſs and Evidence in Mathematical Demonſtrations by which the Mind is convinc'd, and with which 'tis ſo greatly delighted; does not partly ariſe from, and is in ſome meaſure owing to the Paucity of Words us'd in that way of Proving (by References as in this way of expreſſing the Mind by a real Character) to the Art of raiſing and exciting Ideas unincumbered, not clouded by a Number and Multiplicity of Words. And 'tis not altogether unworthy our Notice, that the cloſe Application, the very Intention

of

of Mind neceſſary to enable a Man to expreſs himſelf well by this Character, will not a little contribute to that Clearneſs which is the beſt Preſervative againſt Errors, the ſureſt Guide to Truth. By what I have ſaid to recommend the Learning and Practice of this Character, I would not be thought to intend that this ſort of Study ſhould take up much of the Time and Thoughts of thoſe who are employ'd on a great variety of Matter, in a continued Progreſs towards new and freſh Objects, worthy their Purſuit; more eagerly to be deſir'd; more diligently and aſſiduouſly to be labour'd for; but by way of Amuſement and Diverſion to be put in Practice now and then, to be at times and occaſionally, by way of Change and Variety, an Exerciſe of their Parts and Learning, in a ſpeculative and philoſophick, and at the ſame time no unuſeful Way, no ways unbecoming a Scholar, a Man of Knowledge to be engag'd in.

But to return to, and ſpeak a word or two more of the Tables. In the fourth, fifth and ſixth Chapters of the ſecond Book of this Eſſay, where our Author treats of Vegetables, under the Name of Herbs, Shrubs, and Trees: Of Animals, under the Name of exanguious Animals, Fiſhes, Birds, and Beaſts; and of the Parts of animate Bodies, more peculiar, and more general: He is more than ordinary particular, and has hereupon imploy'd about an hundred and fifteen Pages, where a leſs Number might have been ſufficient. Now in Excuſe for his over Minuteneſs in theſe Tables, which may be thought redundant, it may be urg'd, that the Biſhop being a Virtuoſo, and fond of thoſe Parts of Knowledge that thoſe Gentlemen commonly buſy themſelves about, and the Work it ſelf being addreſt to the Preſident and Fellows of the Royal Society:

Society: He might be too apt to indulge his Fancy, to gratify himſelf in purſuing his beloved Study; and being got into thoſe immenſe Fields of Contemplation, might be tempted to wander and expatiate upon thoſe Subjects which would be no leſs agreeable to the Gentlemen of the Society than to himſelf. But our young Gentleman, who 'tis ſuppoſed to be deſigned for higher and more uſeful Attainments, is not obliged to follow the Reverend Author through theſe long and tedious Tables: As he is not to be a Botaniſt, he has no occaſion to trouble himſelf about getting a very exact and particular Knowledge of thoſe numerous kinds of Plants, which thoſe that are moſt vers'd in the Study of them, are under ſome Difficulty even fully to enumerate. And as he is not to write of Fiſhes, Birds and Beaſts, it belongs not to him to enquire after, and underſtand the ſeveral Species of Animals; and tho' Mr. *Willoughby*, in order to improve himſelf in, and advance that part of Knowledge, might think it worth his while to travel through the moſt conſiderable Parts of *Europe*, to add to the ingenious Obſervations of other learned Authors thoſe of his own; yet, if I was to adviſe, I would not have our young Scholar ſpend ſo much Time as to traverſe the Tables owing to the Labours of that inquſitive Traveller. And of the hundred and fifteen Pages, let him content himſelf with reading about fifty. On the other hand, where there is a Deficiency in the Tables, it will deſerve the Study of the Tutor, for the Benefit of his Pupil, to add what is wanting, and ſupply theſe Defects.

As I have in this Diſcourſe a conſtant Eye to the Biſhop's Eſſay, and make frequent References to it, they who are Strangers to the Work, will complain of the Obſcurity of this; and I may be blam'd

blam'd by theſe Men for what they'll call an unintelligible way of Writing: To ſuch I ſhall only ſay this, that in giving account of a Folio of above ſix hundred Pages in an Octavo Pamphlet of thirty one, this could not be avoided. If indeed inſtead of referring my Reader to what is in Print, I had ſent my Reader to ſome un-come-at-able MS. I had then laid my ſelf open to *Hubibras's* witty Cenſure,

In Weſtern Clime there is a Town
To thoſe that live therein well known.

FINIS.